Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): A method for the preparation of a recombinant polypeptide comprising

a) transforming a host cell with an expression vector comprising:

(1) a nucleic acid sequence capable of regulating transcription in a host cell, operatively linked to

(2) a chimeric nucleic acid sequence ~~encoding a fusion protein, the chimeric nucleic acid sequence comprising~~ that encodes a fusion protein and that comprises (a) a nucleic acid sequence encoding a full-length chymosin pro-peptide, linked in reading frame to (b) a nucleic acid sequence that is heterologous to the pro-peptide and ~~encoding~~ that encodes the recombinant polypeptide, wherein the heterologous nucleic acid sequence is located immediately downstream of the nucleic acid sequence encoding the chymosin pro-peptide; operatively linked to

(3) a nucleic acid sequence encoding a termination region that is functional in said host cell,

b) growing the host cell to produce said fusion protein[[;]], and

c) ~~adding~~ contacting said fusion protein with a mature form of an autocatalytically maturing aspartic protease~~,~~ that is capable of accurately cleaving the chymosin pro-peptide, ~~to the fusion protein so that the~~ whereby said chymosin pro-peptide is cleaved from ~~the~~ said fusion protein to release ~~the~~ said recombinant polypeptide.

Claims 2-3 (Canceled).

Claim 4 (Currently Amended): The method according to claim 1 wherein said aspartic protease ~~added in~~ of step c) is selected from the group consisting of chymosin, pepsin, ~~HIV-1 protease,~~ pepsinogen, cathepsin and yeast proteinase A.

Claim 5 (Previously Presented): The method according to claim 1 wherein the recombinant polypeptide is hirudin or carp growth hormone.

Claim 6 (Previously Presented): The method according to claim 1 wherein the chimeric nucleic acid sequence does not include a sequence encoding a mature form of chymosin.

Claim 7 (Currently Amended): The method according to claim 1 wherein step c) is effected at a ~~the~~ pH ~~is~~ of from about 2 to about 7 ~~in step c)~~.

Claim 8 (Previously Presented): The method according to claim 7 wherein the pH is from about 2 to about 4.5.

Claim 9 (Currently Amended): The method according to claim 1 wherein step c) ~~takes place~~ is effected under in vitro conditions.

Claim 10 (Currently Amended): The method according to claim 1 wherein step c) ~~takes place~~ is effected under in vivo conditions.

Claim 11 (Canceled).

Claim 12: (Currently Amended) The method according to claim 10 wherein step c) is effected in ~~the in vivo conditions are those prevalent in a tissue or bodily fluid of an animal and wherein the tissue or bodily fluid comprises~~ the milk, the stomach, ~~of~~ or the gut of ~~said~~ an animal.

Claim 13 (Currently Amended): The method according to claim 1 wherein the ~~mature form of the~~ aspartic protease ~~added in~~ of step c) is chymosin.

Claim 14 (Currently Amended): The method according to claim 1 wherein the aspartic protease ~~added in~~ of step c) is heterologous to the chymosin pro-peptide.

Claim 15 (Currently Amended): The method according to claim 13 step c) is effected ~~wherein the chymosin is added~~ under in vitro conditions.

Claim 16 (Currently Amended): The method according to claim 13 wherein step c) is effected ~~wherein the chymosin is added~~ under in vivo conditions.

Claim 17 (Canceled).

Claim 18: (Currently Amended): The method according to claim 16 wherein step c) is effected ~~said in vivo conditions take place in a tissue or bodily fluid of an animal and wherein the tissue or bodily fluid is of a~~ in the stomach, gut, or milk of ~~said~~ an animal.

Claim 19 (Previously Presented): The method according to claim 1 wherein said nucleic acid sequences are deoxyribonucleic acid (DNA) sequences.

Claims 20-47 (Canceled).

Claim 48 (New): The method of claim 10 wherein step c) is effected by expressing said aspartic protease in said host cell.

Claim 49 (New): The method of claim 16 wherein step c) is effected by expressing said aspartic protease in said host cell.

Claim 50 (New): The method according to claim 1 wherein said aspartic protease of step c) is pepsin.